

AMENDMENTS TO THE CLAIMS

Listing of Claims

1. (Currently Amended) A method for configuring a gas distribution channel, said gas distribution channel being configured for introducing a plasma source gas into a plasma processing chamber of a plasma processing system, comprising:

providing a metal conduit;

providing a thermo-plastic tubular structure;

disposing said thermo-plastic tubular structure within said metal conduit;

heating ~~the said~~ metal conduit, containing said thermo-plastic tubular structure disposed within, to a first temperature;

pressurizing said thermo-plastic tubular structure causing said thermo-plastic tubular structure to mechanically couple with said metal conduit wherein an outer surface of said thermo-plastic tubular structure is longitudinally coupled with an inner surface of said metal conduit;

cooling ~~the said~~ thermo-plastic tubular structure to a second temperature that is below the melting point of thermo-plastic material of said thermo-plastic tubular structure; and

injecting a resin material between ~~the said~~ metal conduit and the thermo-plastic tubular structure after ~~the said~~ cooling.
2. (original) The method of claim 1 further comprising configuring said gas distribution channel to enable a flow of said plasma processing source gas through said channel to be controlled by a mass flow controller of said plasma processing system.
3. (Previously Presented) The method of claim 1, wherein said resin material includes a set of thermoplastic polymers.
4. (Previously Presented) The method of claim 3, where said resin material includes a bonding agent.

5. (original) The method of claim 1, where said metal conduit is stainless steel.
6. (original) The method of claim 1, where said metal conduit is copper.
7. (original) The method of claim 1, where said metal conduit is aluminum.
8. (original) The method of claim 1, where said metal conduit is a metal alloy.
9. (original) The method of claim 1, where said thermo-plastic tubular structure is PTFE.
10. (original) The method of claim 1, where said thermo-plastic tubular structure is FEP.
11. (original) The method of claim 1, where said thermo-plastic tubular structure is PFA.
12. (original) The method of claim 1, where said thermo-plastic tubular structure is PCTFE.
13. (original) The method of claim 1, where said thermo-plastic tubular structure is CTFE.
14. (original) The method of claim 3, where said resin material is PTFE.
15. (original) The method of claim 3, where said resin material is FEP.
16. (original) The method of claim 3, where said resin material is PFA.
17. (original) The method of claim 3, where said resin material is PCTFE.
18. (original) The method of claim 3, where said resin material is CTFE.
- 19-48. (canceled).